

The statement was that in her father's family, comprising so many persons who drank cistern water, malarial diseases were unknown, while in that of their next-door neighbor, consisting of exactly the same number of adults and children who drank from "the best well in town," they were rarely absent. My attention having thus been directed to the matter, it was not long before the opinion, which was confirmed by other evidence of a similar character, became a conviction, and for years I have not had a doubt that drinking water was one of the principal if not the chief one of the avenues by which the malarial poison obtained an entry into the human system. Until quite recently the opinion almost universally held was that it was introduced through the air only. The very name *malaria*, or bad air, is significant of that view. There is no question that the poison does exist in the air of warm climates in certain localities, especially in low, wet soils loaded with decaying vegetable matter, or in other localities not so low, but where the subsoil water is near the surface; that it is most abundant at night, particularly in the air nearest the ground, and that it is breathed in through the lungs.

As to the nature of the poison many theories have been promulgated. Up to 1866 the universally accepted opinion was that it was gaseous in character. In that year Dr. Salisbury, of Cincinnati, Ohio, announced the discovery of an *alga*, or small water plant, which he assigned as the cause of malarial fever. While his conclusions were not generally accepted, inquiry on that line was stimulated, and from time to time various microscopic organisms were suggested as the cause, none of which, however, stood the test of experiment. But "in 1881 Laveran claimed to have discovered in the blood of malarious subjects, in connection with the red corpuscles, rapidly moving filamented spherical organisms of about the same diameter as the corpuscles. * * * Many investigators who have followed in Laveran's track have corroborated his testimony, and hence there is a growing consensus of opinion that malaria is due to the introduction of *plasmodium malarie* into the system; that it attacks the red blood corpuscles, lives and grows within them, and finally disintegrates them"—the explanation, by the way, of the familiar fact that the subjects of chronic malaria are always very pale and bloodless. Since the above was written (in 1892) favorable evidence has accumulated, and it is now generally believed that this little blood parasite—this microscopic vampire, so to speak—is the cause of this kind of diseases.

Now, is this poison carried in water? That is the question before us. That it is a fact I have not a doubt, and my aim and hope is to prove it so completely to the satisfaction of our people residing in malarious districts as to induce them to seek such a water supply as cannot be contaminated by it. As the Executive Health Officer of the State, I feel sure that in no other direction can larger results in the way of preventing sickness be obtained than by bringing about a change in the family water supply from the ordinary surface well, almost universally used at